

## WEST Search History





DATE: Tuesday, June 29, 2004

<u>Hide?</u>	<u>Set Name</u>	<u>Query</u>	<u>Hit Count</u>
	<i>DB=USPT,EPAB,JPAB,DWPI,TDBD; PLUR=YES; OP=OR</i>		
<input type="checkbox"/>	L14	liposome adj10 (isoelectric adj1 point)	9
<input type="checkbox"/>	L13	L12 and dotap	1
<input type="checkbox"/>	L12	liposome adj10 (cholesterol adj1 hemisuccinate)	28
<input type="checkbox"/>	L11	liposome adj5 (cholesterol adj1 hemisuccinate)	20
<input type="checkbox"/>	L10	L7 and dotap	5
<input type="checkbox"/>	L9	(liposome) adj5 chems adj5 dotap\$	0
<input type="checkbox"/>	L8	(liposome) adj5 chems adj5 dotap	0
<input type="checkbox"/>	L7	(liposome) adj5 chems	147
<input type="checkbox"/>	L6	(liposome) adj5 (both) adj5 positive\$ adj5 negative\$	1
<input type="checkbox"/>	L5	liposome adj5 positive\$ adj5 negative\$	250
<input type="checkbox"/>	L4	liposome adj5 isoelectric	5
<input type="checkbox"/>	L3	liposome adj5 amphoteric	9
<input type="checkbox"/>	L2	liposome adj3 amphoteric	8
<input type="checkbox"/>	L1	liposome adj3 amphoteric\$	57

END OF SEARCH HISTORY

[First Hit](#)   [Fwd Refs](#)

L11: Entry 2 of 20

File: USPT

Jul 1, 2003

DOCUMENT-IDENTIFIER: US 6585975 B1

TITLE: Use of Salmonella vectors for vaccination against helicobacter infection

Detailed Description Text (20):

Useful liposomes for the purposes of the present invention can be selected, for example, from pH-sensitive liposomes, such as those formed by mixing cholesterol hemisuccinate (CHEMS) and dioleoyl phosphatidyl ethanolamine (DOPE); liposomes containing cationic lipids recognized for their fusiogenic properties, such as 3-beta-(N-(N',N'-dimethylamino-ethane)carbonyl)cholesterol (DC-chol) and its equivalents, which are described in U.S. Pat. No. 5,283,185 and WO 96/14831; dimethyldioctadecylammonium bromide (DDAB) and the BAY compounds described in EP 91645 and EP 206 037, for example, Bay R1005 (N-(2-deoxy-2-L-leucylamino-beta-D-glucopyranosyl)-N-octa-decyldodecanoyl amide acetate; and liposomes containing MTP-PE, a lipophilic derivative of MDP (muramidyldipeptide). These liposomes are useful as adjuvants with all of the antigens described herein.

[First Hit](#)   [Fwd Refs](#)☐ [Generate Collection](#) [Print](#)

L12: Entry 17 of 28

File: USPT

Apr 12, 1994

DOCUMENT-IDENTIFIER: US 5302389 A

TITLE: Method for treating UV-induced suppression of contact hypersensitivity by administration of T4 endonuclease

Detailed Description Text (10):

T4N5 liposomes were prepared by encapsulating purified, recombinant T4 endonuclease V in liposomes composed of phosphatidylcholine, phosphatidylethanolamine, oleic acid, and cholesterol hemisuccinate (2:2:1:5 molar ratio) by the detergent dialysis method (14). The concentration of the entrapped enzyme was determined by ELISA (16) and is expressed as mg T4 endonuclease V per ml of vehicle. The encapsulated activity was assayed by nicking of UV-supercoiled DNA with and without dissolution of the liposomes (16). Control preparations of liposomes contained boiled (enzymatically inactive) T4 endonuclease V (14). The liposomes were mixed into a 1% hydrogel (Hypan SS201, Kingston Hydrogels, Dayton, N.J.) made with phosphate-buffered saline and applied to shaved mouse skin with a moist cotton swab. Immediately after UV irradiation, 0.25 ml of liposome suspension containing 0.5 mg/ml T4 endonuclease V was applied to the UV-irradiated skin of each mouse.

[First Hit](#)   [Fwd Refs](#)☐ [Generate Collection](#) [Print](#)

L12: Entry 20 of 28

File: USPT

Oct 6, 1992

DOCUMENT-IDENTIFIER: US 5152999 A

TITLE: Liposome preparation

Brief Summary Text (7):

On the other hand, in Adriamycin-entrapped liposome preparations, it is known to use sterols having a negative charge such as cholesterol sulfate and cholesterol hemisuccinate as the liposome membrane constituent (International Patent Application No. PCT/US88/01573 : International Publication No. W088/09168).

## Hit List

Clear	Generate Collection	Print	Fwd Refs	Bkwd Refs
Generate OACS				

Search Results - Record(s) 1 through 28 of 28 returned.

☐ 1. Document ID: US 6733776 B1

Using default format because multiple data bases are involved.

L12: Entry 1 of 28

File: USPT

May 11, 2004

US-PAT-NO: 6733776

DOCUMENT-IDENTIFIER: US 6733776 B1

TITLE: Method for promoting hair growth

DATE-ISSUED: May 11, 2004

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Li; Lingna	La Jolla	CA		
Lishko; Valeryi	Shaker Hts.	OH		

US-CL-CURRENT: 424/450

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWC	Draw. D
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☐ 2. Document ID: US 6585975 B1

L12: Entry 2 of 28

File: USPT

Jul 1, 2003

US-PAT-NO: 6585975

DOCUMENT-IDENTIFIER: US 6585975 B1

TITLE: Use of Salmonella vectors for vaccination against helicobacter infection

DATE-ISSUED: July 1, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Kleanthous; Harold	Westford	MA		
Londono-Arcila; Patricia	London			GB
Freeman; Donna	Cambridge			GB
Lee; Cynthia K.	Needham	MA		
Monath; Thomas P.	Harvard	MA		

US-CL-CURRENT: 424/200.1; 424/234.1, 435/6, 435/69.1, 514/44, 536/23.5

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KMCM	Draw D
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☐ 3. Document ID: US 6436435 B1

L12: Entry 3 of 28

File: USPT

Aug 20, 2002

US-PAT-NO: 6436435

DOCUMENT-IDENTIFIER: US 6436435 B1

TITLE: Liposome formulation of 5 .beta. steroids

DATE-ISSUED: August 20, 2002

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Rubinfeld; Joseph	Danville	CA		
Fineman; Elliott L.	Kensington	CA		

US-CL-CURRENT: 424/450; 424/423

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KMCM	Draw D
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☐ 4. Document ID: US 6352716 B1

L12: Entry 4 of 28

File: USPT

Mar 5, 2002

US-PAT-NO: 6352716

DOCUMENT-IDENTIFIER: US 6352716 B1

TITLE: Steroidal liposomes

DATE-ISSUED: March 5, 2002

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Janoff; Andrew S.	Yardley	PA		
Popescu; Mircea C.	Plainsboro	NJ		
Weiner; Alan L.	Lawrenceville	NJ		
Bolcsak; Lois E.	Lawrenceville	NJ		
Tremblay; Paul A.	Hamilton	NJ		
Swenson; Christine E.	Princeton Junction	NJ		

US-CL-CURRENT: 424/450; 264/4.1, 264/4.6, 424/1.21, 424/9.1, 436/829, 514/182,  
514/78, 514/887, 514/967

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KMCM	Draw D
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☐ 5. Document ID: US 6261596 B1

L12: Entry 5 of 28

File: USPT

Jul 17, 2001

US-PAT-NO: 6261596

DOCUMENT-IDENTIFIER: US 6261596 B1

TITLE: Method to provide for production of hair coloring pigments in hair follicles

DATE-ISSUED: July 17, 2001

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Li; Lingna	La Jolla	CA		
Lishko; Valeryi	Shaker Hts	OH		

US-CL-CURRENT: 424/450; 424/70.1, 424/70.6

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC	Draw. De
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☐ 6. Document ID: US 6224901 B1

L12: Entry 6 of 28

File: USPT

May 1, 2001

US-PAT-NO: 6224901

DOCUMENT-IDENTIFIER: US 6224901 B1

**\*\* See image for Certificate of Correction \*\***

TITLE: Method for delivering beneficial compositions to hair follicles

DATE-ISSUED: May 1, 2001

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Li; Lingna	La Jolla	CA		
Lishko; Valervi	Shaker Hts.	OH		

US-CL-CURRENT: 424/450; 424/401, 424/70.1, 424/70.6

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC	Draw. De
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☐ 7. Document ID: US 6090406 A

L12: Entry 7 of 28

File: USPT

Jul 18, 2000

US-PAT-NO: 6090406

DOCUMENT-IDENTIFIER: US 6090406 A

TITLE: Potentiation of immune responses with liposomal adjuvants

DATE-ISSUED: July 18, 2000

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Popescu; Mircea C.	Plainsboro	NJ		
Weiner; Alan L.	Lawrenceville	NJ		
Recine; Marie S.	Hamilton Township	NJ		
Janoff; Andrew S.	Yardley	PA		
Estis; Leonard	Upton	MA		
Keyes; Lynn D.	Upton	MA		
Alving; Carl R.	Bethesda	MD		

US-CL-CURRENT: 424/450; 264/4.1, 424/196.11, 424/204.1, 424/206.1, 424/234.1,  
424/812

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC	Draw. Data
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☐ 8. Document ID: US 6045821 A

L12: Entry 8 of 28

File: USPT

Apr 4, 2000

US-PAT-NO: 6045821

DOCUMENT-IDENTIFIER: US 6045821 A

TITLE: Liposomal agents

DATE-ISSUED: April 4, 2000

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Garritty; Martha	Wayne	PA		
Varadarajan; John	Wayne	PA		
Watson; Alan David	Wayne	PA		

US-CL-CURRENT: 424/450; 424/1.21, 424/9.3, 424/9.321, 424/9.361, 424/9.42, 424/9.51

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC	Draw. Data
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☐ 9. Document ID: US 6010681 A

L12: Entry 9 of 28

File: USPT

Jan 4, 2000

US-PAT-NO: 6010681

DOCUMENT-IDENTIFIER: US 6010681 A

TITLE: Biodegradable blood-pool contrast agents

DATE-ISSUED: January 4, 2000

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
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Margerum; Larry	Wayne	PA
Campion; Brian	Solano Beach	CA
Fellmann; Jere Douglas	Livermore	CA
Garritty; Martha	San Clemente	CA
Varadarajan; John	Sunnyvale	CA

US-CL-CURRENT: 424/9.35; 424/9.36, 424/9.364, 424/9.42

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KMC	Draw. De
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☐ 10. Document ID: US 5965157 A

L12: Entry 10 of 28

File: USPT

Oct 12, 1999

US-PAT-NO: 5965157

DOCUMENT-IDENTIFIER: US 5965157 A

TITLE: Method to provide for production of hair coloring pigments in hair follicles

DATE-ISSUED: October 12, 1999

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Li; Lingna	La Jolla	CA		
Lishko; Valeryi	Shaker Hts.	OH		

US-CL-CURRENT: 424/450; 424/70.1, 424/70.6

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KMC	Draw. De
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☐ 11. Document ID: US 5916588 A

L12: Entry 11 of 28

File: USPT

Jun 29, 1999

US-PAT-NO: 5916588

DOCUMENT-IDENTIFIER: US 5916588 A

TITLE: Peptide-containing liposomes, immunogenic liposomes and methods of preparation and use

DATE-ISSUED: June 29, 1999

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Popescu; Mircea C.	Plainsboro	NJ		
Weiner; Alan L.	Lawrenceville	NJ		
Recine; Marie S.	Hamilton Township	NJ		
Janoff; Andrew S.	Yardley	PA		
Estis; Leonard	Upton	MA		

Keyes; Lynn D. Upton MA  
Alving; Carl R. Bethesda MD

US-CL-CURRENT: 424/450; 424/184.1

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KIMC	Draw D
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☐ 12. Document ID: US 5914126 A

L12: Entry 12 of 28

File: USPT

Jun 22, 1999

US-PAT-NO: 5914126

DOCUMENT-IDENTIFIER: US 5914126 A

TITLE: Methods to deliver macromolecules to hair follicles

DATE-ISSUED: June 22, 1999

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Li; Lingna	La Jolla	CA		
Lishko; Valeryi	Shaker Hts.	OH		

US-CL-CURRENT: 424/450; 424/70.1, 514/2, 514/44

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KIMC	Draw D
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☐ 13. Document ID: US 5897873 A

L12: Entry 13 of 28

File: USPT

Apr 27, 1999

US-PAT-NO: 5897873

DOCUMENT-IDENTIFIER: US 5897873 A

TITLE: Affinity associated vaccine

DATE-ISSUED: April 27, 1999

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Popescu; Mircea	Plainsboro	NJ		

US-CL-CURRENT: 424/450; 424/204.1, 424/206.1, 424/208.1

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KIMC	Draw D
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☐ 14. Document ID: US 5753263 A

L12: Entry 14 of 28

File: USPT

May 19, 1998

US-PAT-NO: 5753263

DOCUMENT-IDENTIFIER: US 5753263 A

TITLE: Method to deliver compositions conferring resistance to alopecia to hair follicles

DATE-ISSUED: May 19, 1998

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Lishko; Valeryi	Shaker Hts.	OH		
Li; Lingna	La Jolla	CA		

US-CL-CURRENT: 424/450; 424/70.1, 514/2, 514/44

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequence	Attachment	Claims	KMC	Draw D
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☐ 15. Document ID: US 5614214 A

L12: Entry 15 of 28

File: USPT

Mar 25, 1997

US-PAT-NO: 5614214

DOCUMENT-IDENTIFIER: US 5614214 A

TITLE: Reduction of liposome-induced adverse physiological reactions

DATE-ISSUED: March 25, 1997

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Ahl; Patrick L.	Princeton	NJ		
Bhatia; Suresh K.	Plainsboro	NJ		
Minchey; Sharma R.	Monmouth Junction	NJ		
Janoff; Andrew S.	Yardley	PA		

US-CL-CURRENT: 424/450; 428/402.2

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequence	Attachment	Claims	KMC	Draw D
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☐ 16. Document ID: US 5364631 A

L12: Entry 16 of 28

File: USPT

Nov 15, 1994

US-PAT-NO: 5364631

DOCUMENT-IDENTIFIER: US 5364631 A

TITLE: Tocopherol-based pharmaceutical systems

DATE-ISSUED: November 15, 1994

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Janoff; Andrew S.	Yardley	PA		
Boni; Lawrence	Monmouth Junction	NJ		
Minchey; Sharma R.	Monmouth Junction	NJ		
Bolcsak; Lois E.	Lawrenceville	NJ		
Weiss; Steven J.	Belle Mead	NJ		

US-CL-CURRENT: 424/450; 264/4.1, 264/4.6, 428/402.2

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC	Drawings
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☐ 17. Document ID: US 5302389 A

L12: Entry 17 of 28

File: USPT

Apr 12, 1994

US-PAT-NO: 5302389

DOCUMENT-IDENTIFIER: US 5302389 A

TITLE: Method for treating UV-induced suppression of contact hypersensitivity by administration of T4 endonuclease

DATE-ISSUED: April 12, 1994

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Kripke; Margaret L.	Kingwood	TX		
Yarosh; Daniel B.	Merrick	NY		

US-CL-CURRENT: 424/94.6; 424/450, 424/94.3

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC	Drawings
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☐ 18. Document ID: US 5288499 A

L12: Entry 18 of 28

File: USPT

Feb 22, 1994

US-PAT-NO: 5288499

DOCUMENT-IDENTIFIER: US 5288499 A

TITLE: Sterodial liposomes

DATE-ISSUED: February 22, 1994

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Janoff; Andrew S.	Yardley	PA		
Popescu; Mircea C.	Plainsboro	NJ		
Weiner; Alan L.	Lawrenceville	NJ		

Bolcsak; Lois E.	Lawrenceville	NJ
Tremblay; Paul A.	Hamilton	NJ
Swenson; Christine E.	Princeton Junction	NJ

US-CL-CURRENT: 424/450; 264/4.1, 264/4.6, 424/1.21, 424/9.4, 428/402.2, 436/829,  
514/167, 514/78, 514/887, 514/967

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWMC	Draw D
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☐ 19. Document ID: US 5231112 A

L12: Entry 19 of 28

File: USPT

Jul 27, 1993

US-PAT-NO: 5231112

DOCUMENT-IDENTIFIER: US 5231112 A

TITLE: Compositions containing tris salt of cholesterol hemisuccinate and antifungal

DATE-ISSUED: July 27, 1993

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Janoff; Andrew S.	Yardley	PA		
Popescu; Mircea C.	Plainsboro	NJ		
Weiner; Alan L.	Lawrenceville	NJ		
Bolcsak; Lois E.	Lawrenceville	NJ		
Tremblay; Paul A.	Hamilton	NJ		
Swenson; Christine E.	Princeton Junction	NJ		

US-CL-CURRENT: 514/401; 424/DIG.15, 514/887, 514/967

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWMC	Draw D
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☐ 20. Document ID: US 5152999 A

L12: Entry 20 of 28

File: USPT

Oct 6, 1992

US-PAT-NO: 5152999

DOCUMENT-IDENTIFIER: US 5152999 A

TITLE: Liposome preparation

DATE-ISSUED: October 6, 1992

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Tokunaga; Yuji	Sanda			JP
Yamamoto; Takao	Osaka			JP

Hata; Takehisa

Nagaokakyo

JP

US-CL-CURRENT: 424/450; 552/544, 562/563, 562/576

Full	Title	Citation	Front	Review	Classification	Date	Reference	EPAB	Attachments	Claims	KWMC	Draw D
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☐ 21. Document ID: US 4891208 A

L12: Entry 21 of 28

File: USPT

Jan 2, 1990

US-PAT-NO: 4891208

DOCUMENT-IDENTIFIER: US 4891208 A

TITLE: Steroidal liposomes

DATE-ISSUED: January 2, 1990

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Janoff; Andrew S.	Yardley	PA		
Popescu; Mircea C.	Plainsboro	NJ		
Weiner; Alan L.	Plainsboro	NJ		
Bolcsak; Lois E.	Lawrenceville	NJ		
Tremblay; Paul A.	Hamilton	NJ		
Swenson; Christine E.	Plainsboro	NJ		

US-CL-CURRENT: 424/1.21; 264/4.1, 264/4.6, 424/450, 424/9.4, 424/9.6, 428/402.2,  
436/829, 514/167, 514/3, 514/396, 514/78, 514/885, 514/887, 514/967, 604/891.1

Full	Title	Citation	Front	Review	Classification	Date	Reference	EPAB	Attachments	Claims	KWMC	Draw D
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☐ 22. Document ID: US 4721612 A

L12: Entry 22 of 28

File: USPT

Jan 26, 1988

US-PAT-NO: 4721612

DOCUMENT-IDENTIFIER: US 4721612 A

TITLE: Steroidal liposomes

DATE-ISSUED: January 26, 1988

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Janoff; Andrew S.	Yardley	PA		
Popescu; Mircea C.	Plainsboro	NJ		
Weiner; Alan L.	Plainsboro	NJ		
Bolcsak; Lois E.	Lawrenceville	NJ		
Tremblay; Paul S.	Hamilton	NJ		

US-CL-CURRENT: 424/1.21; 264/4.1, 264/4.6, 424/450, 424/9.4, 424/9.6, 428/402.2,  
436/52, 436/829, 514/167, 514/78, 514/887, 514/967

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC	Draw. D
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☐ 23. Document ID: US 20020192274 A1, WO 200276427 A2

L12: Entry 23 of 28

File: DWPI

Dec 19, 2002

DERWENT-ACC-NO: 2002-750583

DERWENT-WEEK: 200303

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TITLE: Composition useful for the treatment of macrophage associated diseases  
comprises a liposome having a lipid component containing phosphatidyl ethanolamine,  
cholesteryl hemisuccinate and cholesterol component

INVENTOR: PONNAPPA, B C

PRIORITY-DATA: 2001US-278605P (March 26, 2001), 2002US-0106142 (March 25, 2002)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
US <u>20020192274 A1</u>	December 19, 2002		000	A61K009/127
WO <u>200276427 A2</u>	October 3, 2002	E	040	A61K009/127

INT-CL (IPC): A61 K 9/127; A61 K 48/00

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC	Draw. D
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☐ 24. Document ID: AU 2002244726 A1, WO 200266490 A2, EP 1363933 A2

L12: Entry 24 of 28

File: DWPI

Sep 4, 2002

DERWENT-ACC-NO: 2002-657652

DERWENT-WEEK: 200427

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TITLE: New sterol derivatives useful as components of liposomes for e.g. production  
of diagnostic release systems, for transport and release of active substances, as  
depot formulations, and as vectors for cell transfection

INVENTOR: BEHRENS, A; ENDERT, G ; FANKHANEL, S ; PANZNER, S ; FANKHAENEL, S

PRIORITY-DATA: 2001DE-1009898 (February 21, 2001)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
AU <u>2002244726 A1</u>	September 4, 2002		000	C07J043/00
WO <u>200266490 A2</u>	August 29, 2002	G	037	C07J043/00
EP <u>1363933 A2</u>	November 26, 2003	G	000	C07J043/00

INT-CL (IPC): A61 K 9/127; A61 K 31/58; C07 J 43/00

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KMC	Draw D
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☐ 25. Document ID: WO 9814170 A1, AU 9745071 A

L12: Entry 25 of 28

File: DWPI

Apr 9, 1998

DERWENT-ACC-NO: 1998-239839

DERWENT-WEEK: 199821

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TITLE: Composition for treatment of cancerous B cell disorders - comprises lipid-based carrier and tumour idiotype derived from cancerous B cells

INVENTOR: AGUS, D B; AHMAD, I ; JANOFF, A S ; MAYHEW, E ; ZELENETZ, A D

PRIORITY-DATA: 1996US-027201P (September 30, 1996)

## PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
<u>WO 9814170 A1</u>	April 9, 1998	E	023	A61K009/127
<u>AU 9745071 A</u>	April 24, 1998		000	A61K009/127

INT-CL (IPC): A61 K 9/127; A61 K 39/395

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KMC	Draw D
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☐ 26. Document ID: WO 9222249 A1, AU 9221496 A, US 5209720 A, JP 06508277 W, EP 660687 A1, AU 661701 B, EP 660687 A4, EP 660687 B1, DE 69227468 E, ES 2124733 T3, JP 3053217 B2

L12: Entry 26 of 28

File: DWPI

Dec 23, 1992

DERWENT-ACC-NO: 1993-017861

DERWENT-WEEK: 200403

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TITLE: Heat treating biological tissue and fluids - using hyperthermia potentiator comprising gas filled liposome(s) and ultrasound treatment

INVENTOR: UNGER, E C

PRIORITY-DATA: 1991US-0716793 (June 18, 1991), 1989US-0455707 (December 22, 1989), 1990US-0569828 (August 20, 1990), 1990US-0581027 (September 11, 1990)

## PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
<u>WO 9222249 A1</u>	December 23, 1992	E	031	A61B008/14
<u>AU 9221496 A</u>	January 12, 1993		000	
<u>US 5209720 A</u>	May 11, 1993		012	A61B017/20
<u>JP 06508277 W</u>	September 22, 1994		011	A61F007/00
<u>EP 660687 A1</u>	July 5, 1995	E	000	



<u>AU 661701 B</u>	August 3, 1995		000	A61B007/00
<u>EP 660687 A4</u>	June 26, 1996		000	
<u>EP 660687 B1</u>	October 28, 1998	E	000	A61B008/14
<u>DE 69227468 E</u>	December 3, 1998		000	A61B008/14
<u>ES 2124733 T3</u>	February 16, 1999		000	A61B008/14
<u>JP 3053217 B2</u>	June 19, 2000		011	A61F007/00

INT-CL (IPC): A61 B 7/00; A61 B 8/14; A61 B 17/20; A61 F 7/00; A61 K 9/127; A61 K 41/00; B01 J 13/02

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequence	Attachments	Claims	KWMC	Draw. D
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☐ 27. Document ID: EP 356340 A, EP 356340 B1, DE 68919173 E, ES 2063154 T3, CA 1334165 C, US 5897873 A

L12: Entry 27 of 28

File: DWPI

Feb 28, 1990

DERWENT-ACC-NO: 1990-061014

DERWENT-WEEK: 200238

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TITLE: Affinity associated antigen for use in vaccines - comprising liposome in affinity association with externally disposed antigen opt. with adjuvant

INVENTOR: POPESCU, M C; ALVING, C L ; ESTIS, L F ; JANOFF, A S ; KEYES, L D ; RECINE, M S ; POPESCU, M

PRIORITY-DATA: 1989US-0397758 (August 23, 1989), 1988US-0236701 (August 25, 1988), 1988US-0236702 (August 25, 1988), 1989US-0397777 (August 23, 1989), 1984US-0599691 (April 12, 1984), 1985US-0721630 (April 10, 1985), 1985US-0773429 (September 10, 1985), 1989US-0425727 (October 23, 1989), 1991US-0758587 (September 12, 1991), 1993US-0108822 (August 18, 1993), 1993US-0146463 (November 2, 1993), 1995US-0392676 (February 23, 1995)

#### PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
<u>EP 356340 A</u>	February 28, 1990	E	011	
<u>EP 356340 B1</u>	November 2, 1994	E	016	A61K009/50
<u>DE 68919173 E</u>	December 8, 1994		000	A61K009/50
<u>ES 2063154 T3</u>	January 1, 1995		000	A61K009/50
<u>CA 1334165 C</u>	January 31, 1995		000	A61K039/00
<u>US 5897873 A</u>	April 13, 1999		000	A61K009/127

INT-CL (IPC): A61K 9/127; A61K 9/50; A61K 39/00; A61K 39/14; A61K 39/145

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequence	Attachments	Claims	KWMC	Draw. D
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☐ 28. Document ID: MX 207955 B, WO 8504578 A, EP 185680 A, ZA 8507576 A, JP 61501921 W, DK 8505735 A, JP 62502464 W, US 4721612 A, CA 1262093 A, KR 8901882 B, IL 74912 A, EP 185680 B1, DE 3586242 G, NO 173213 B, FI 92463 B, JP 07100367 A, IE 66709

B, JP 96032623 B2, JP 08208457 A, JP 2706642 B2

L12: Entry 28 of 28

File: DWPI

May 27, 2002

DERWENT-ACC-NO: 1985-276081

DERWENT-WEEK: 200365

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TITLE: Steroidal liposome of closed bi-layers - comprise salt form of organic acid deriv. of sterol for entrapping bioactive agent for therapeutic or analytical use

INVENTOR: BOLCSAK, E L; JANOFF, W A ; POPOSCU, C M ; TREMBLAY, A P ; WEINER, L A ; BOLCSAK, L E ; JANOFF, A W ; POPOSCU, M C ; TREMBLAY, P A ; WEINER, A L ; JANOFF, A S ; SWENSON, C E ; TREMBLAY, P S ; SWENSSON, C E ; POPOSCU, M

PRIORITY-DATA: 1985US-0721630 (April 10, 1985), 1984US-0599691 (April 12, 1984), 1985ZA-0007576 (October 1, 1985), 1993JP-0268664 (April 11, 1985)

## PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
<u>MX 207955 B</u>	May 27, 2002		000	A61K047/28
<u>WO 8504578 A</u>	October 24, 1985	E	077	
<u>EP 185680 A</u>	July 2, 1986	E	000	
<u>ZA 8507576 A</u>	April 3, 1986		000	
<u>JP 61501921 W</u>	September 4, 1986		000	
<u>DK 8505735 A</u>	December 11, 1985		000	
<u>JP 62502464 W</u>	September 24, 1987		000	
<u>US 4721612 A</u>	January 26, 1988		000	
<u>CA 1262093 A</u>	October 3, 1989		000	
<u>KR 8901882 B</u>	May 29, 1989		000	
<u>IL 74912 A</u>	April 29, 1990		000	
<u>EP 185680 B1</u>	June 17, 1992	E	039	A61K009/52
<u>DE 3586242 G</u>	July 23, 1992		000	A61K009/52
<u>NO 173213 B</u>	August 9, 1993		000	A61K009/127
<u>FI 92463 B</u>	August 15, 1994		000	A61K009/127
<u>JP 07100367 A</u>	April 18, 1995		023	B01J013/02
<u>IE 66709 B</u>	January 24, 1996		000	A61K009/127
<u>JP 96032623 B2</u>	March 29, 1996		026	A61K009/127
<u>JP 08208457 A</u>	August 13, 1996		022	A61K009/127
<u>JP 2706642 B2</u>	January 28, 1998		022	A61K009/127

INT-CL (IPC): A47K 47/00; A61J 3/07; A61K 9/10; A61K 9/127; A61K 9/52; A61K 31/56; A61K 31/59; A61K 37/36; A61K 39/44; A61K 43/00; A61K 47/00; A61K 47/28; A61K 49/00; B01J 13/02; C07J 0/00; G01N 31/00; G01N 33/16; G01N 33/48 ; G01N 33/52; G01N 33/544

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWC	Draw. D
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Generate Collection

Print

Fwd Refs

Bkwd Refs

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Terms

Documents

liposome adj10 (cholesterol adj1 hemisuccinate)	28
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Display Format:

[Previous Page](#)

[Next Page](#)

[Go to Doc#](#)

## WEST Search History

DATE: Tuesday, June 29, 2004

Hide?	Set Name	Query	Hit Count
		<i>DB=USPT,EPAB,JPAB,DWPI,TDBD; PLUR=YES; OP=OR</i>	
<input type="checkbox"/>	L12	liposome adj10 (cholesterol adj1 hemisuccinate)	28
<input type="checkbox"/>	L11	liposome adj5 (cholesterol adj1 hemisuccinate)	20
<input type="checkbox"/>	L10	L7 and dotap	5
<input type="checkbox"/>	L9	(liposome) adj5 chems adj5 dotap\$	0
<input type="checkbox"/>	L8	(liposome) adj5 chems adj5 dotap	0
<input type="checkbox"/>	L7	(liposome) adj5 chems	147
<input type="checkbox"/>	L6	(liposome) adj5 (both) adj5 positive\$ adj5 negative\$	1
<input type="checkbox"/>	L5	liposome adj5 positive\$ adj5 negative\$	250
<input type="checkbox"/>	L4	liposome adj5 isoelectric	5
<input type="checkbox"/>	L3	liposome adj5 amphoteric	9
<input type="checkbox"/>	L2	liposome adj3 amphoteric	8
<input type="checkbox"/>	L1	liposome adj3 amphoteric\$	57

END OF SEARCH HISTORY

[First Hit](#)   [Fwd Refs](#)**End of Result Set**

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Print

L13: Entry 1 of 1

File: USPT

Apr 27, 1999

DOCUMENT-IDENTIFIER: US 5897873 A  
TITLE: Affinity associated vaccine

Brief Summary Text (25):

In particular applications liposomes may comprise cholesterol hemisuccinate, phosphatidylserine, phosphatidic acid, or phosphatidylglycerol as well as aminodiglyceride, glyceridecholine, stearylamine, trimethylstearylamine, dioctadecyl trimethylammonio derivatives (e.g., 1,2 bis(oleoyloxy)-3-dioctadecyl trimethylammonio propane--"DOTAP") or any bilayer forming amphiphile having a charged hydrophilic moiety.

Brief Summary Text (30):

In the practice of this method of treatment in various embodiments the liposome comprises cholesterol hemisuccinate, phosphatidylserine, phosphatidic acid, or phosphatidylglycerol as well as aminodiglyceride, glyceridecholine, stearylamine, trimethylstearylamine, or dioctadecyl trimethylammonio derivatives or any bilayer forming amphiphile having a charged hydrophilic moiety. Antigens can comprise HIV or a portion thereof, particularly PB1. Various antigens are noted to be proteins, peptides, glycopeptides, or glycoproteins, polypeptides, or poly (amino acid) and will be termed, collectively, "peptide". Particularly noted as antigens are influenza or fragments thereof, herpes or fragments thereof, haemophilus B or fragments thereof, or malaria or fragments thereof, as well as isolated or bioengineered fragments of viruses, bacteria, cancer cells, humoral cells and body fluid components.

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End of Result Set



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L13: Entry 1 of 1

File: USPT

Apr 27, 1999

US-PAT-NO: 5897873

DOCUMENT-IDENTIFIER: US 5897873 A

TITLE: Affinity associated vaccine

DATE-ISSUED: April 27, 1999

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Popescu; Mircea	Plainsboro	NJ		

US-CL-CURRENT: 424/450; 424/204.1, 424/206.1, 424/208.1

## CLAIMS:

I claim:

1. A composition which comprises:

(i) an adjuvant liposome which comprises a lipid consisting essentially of a cholesteryl hemisuccinate salt; and

(ii) a peptide antigen in electrostatic association with the lipid

wherein the peptide antigen has an isoelectric point of at least about 8 and is associated with the external surface of the liposome.

2. The composition of claim 1, wherein the antigen is a viral, bacterial, protozoal or cellular antigen.

3. The composition of claim 2, wherein the antigen is selected from the group consisting of human immunodeficiency virus and Haemophilus influenza B antigens.

4. The composition of claim 3, wherein the antigen is a human immunodeficiency virus antigen.

5. The composition of claim 1, wherein the cholesteryl hemisuccinate salt is a tris(hydroxymethyl) aminomethane salt.

6. The composition of claim 1 comprising an additional adjuvant.

7. The composition of claim 6, wherein the additional adjuvant comprises aluminum hydroxide.

8. A method of enhancing the immune response of an animal to a peptide antigen which comprises administering the composition of claim 1 to the animal.

9. A composition which comprises:

(i) an adjuvant liposome comprising a lipid which consists essentially of the salt form of an organic acid derivative of a sterol; and

(ii) a peptide antigen having an isoelectric point of about 8,

wherein the peptide antigen is electrostatically associated with the external surface of the liposome.

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L14: Entry 3 of 9

File: USPT

Mar 1, 1994

DOCUMENT-IDENTIFIER: US 5290563 A

TITLE: Method for combining a mixture of heterogeneous substances with liposomes

Detailed Description Text (1):

The object of the present invention is a method of the type described at the beginning in which liposomes are made up of cholesterol, a phospholipid and/or at least one ionic lipid which gives the liposome a positive or negative charge. This method is characterized in that the liposome or its constituents are combined with the mixtures of heterogeneous substances, the pH of the whole being higher or lower than the isoelectric point ip of the substances contained in the mixture, depending on whether the ionic lipid is positively or negatively charged respectively.

Detailed Description Text (53):

Table II, which follows, combines the results obtained in the case where the pH of the liposome-allergen mixture is higher than the isoelectric point (ip) of the allergens (which is often the case when following Bangham's method) and in the case where the pH is reduced, for example, with a solution of HCl 0, 1N, to a final value lower than the ip of the allergens, the ionic lipid used being DCP (negative charge).

## CLAIMS:

1. A method of combining protidic allergens and/or allergenic extracts selected from the group consisting of natural allergens from animal or vegetable origin, allergenic proteins and peptides, with a negatively or positively charged liposome comprised of cholesterol, a phospholipid and/or at least one ionic lipid which gives the liposome a positive or negative charge, comprising
  - a) determining the isoelectric point ip of one or more of the allergenic substances to be mixed and
  - b) mixing said allergenic substance or substances with said liposome at a pH lower than said isoelectric point when the liposome is negatively charged or at a pH higher than said isoelectric point when said liposome is positively charged.
2. A method according to claim 1 wherein the liposome is positively charged and the weakest isoelectric point of said substance is determined.
3. A method according to claim 1 wherein the liposome is negatively charged and the strongest isoelectric point of said substance is determined.



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L14: Entry 7 of 9

File: EPAB

Jan 30, 1991

DOCUMENT-IDENTIFIER: EP 410848 A1

TITLE: Process for combining a mixture of heterogeneous substances with liposomes.

Abstract Text (1):

In the process for combining heterogeneous substances, contained in a mixture, with liposomes, in particular allergenic substances, such as allergens and/or allergenic extracts, contained in an allergenic preparation, by adsorption at the surface of and/or incorporation in liposomes, which contain cholesterol, a phospholipid and/or at least one ionic lipid which confers a positive or negative charge on the liposome, the mixture of heterogeneous substances is brought into contact with the liposome or its constituents, the pH of the whole being above or below the isoelectric point pI of the substances contained in the mixture, depending on whether the ionic lipid is positively or negatively charged, respectively.

## Hit List

Clear	Generate Collection	Print	Fwd Refs	Bkwd Refs
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Search Results - Record(s) 1 through 8 of 8 returned.

☐ 1. Document ID: US 5688697 A

Using default format because multiple data bases are involved.

L2: Entry 1 of 8

File: USPT

Nov 18, 1997

US-PAT-NO: 5688697

DOCUMENT-IDENTIFIER: US 5688697 A

TITLE: Stabilized microspheres and methods of preparation

DATE-ISSUED: November 18, 1997

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Malick; Adrien	Granite	MD		
Feindt; Hans H.	Parkton	MD		
Hahn; Gerald D.	Severn	MD		

US-CL-CURRENT: 436/518; 427/2.11, 427/2.14, 427/2.23, 428/402.2, 436/524, 436/527,  
436/528, 436/534, 436/829

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC	Draw Data
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☐ 2. Document ID: US 5635357 A

L2: Entry 2 of 8

File: USPT

Jun 3, 1997

US-PAT-NO: 5635357

DOCUMENT-IDENTIFIER: US 5635357 A

TITLE: Stabilized microspheres and methods of preparation

DATE-ISSUED: June 3, 1997

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Malick; Adrien	Granite	MD		
Feindt; Hans H.	Parkton	MD		

US-CL-CURRENT: 435/7.1; 424/420, 424/450, 427/8, 436/528, 436/531, 436/532

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC	Draw D
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☐ 3. Document ID: US 5620903 A

L2: Entry 3 of 8

File: USPT

Apr 15, 1997

US-PAT-NO: 5620903

DOCUMENT-IDENTIFIER: US 5620903 A

TITLE: Stabilized microspheres and methods of preparation

DATE-ISSUED: April 15, 1997

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Malick; Adrien	Granite	MD		
Feindt; Hans H.	Parkton	MD		
Hahn; Gerald D.	Severn	MD		

US-CL-CURRENT: 436/533; 435/7.1, 435/7.2, 435/7.92, 436/518, 436/523, 436/528,  
436/531, 436/534, 436/536, 436/829

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC	Draw D
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☐ 4. Document ID: US 5593843 A

L2: Entry 4 of 8

File: USPT

Jan 14, 1997

US-PAT-NO: 5593843

DOCUMENT-IDENTIFIER: US 5593843 A

TITLE: Stabilized microspheres and methods of preparation

DATE-ISSUED: January 14, 1997

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Malick; Adrien	Granite	MD		
Feindt; Hans H.	Parkton	MD		

US-CL-CURRENT: 435/7.1; 435/7.2, 435/7.9, 435/7.92, 435/7.93, 436/518, 436/523,  
436/528, 436/531, 436/533, 436/534, 436/536, 436/829

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC	Draw D
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☐ 5. Document ID: US 5580735 A

L2: Entry 5 of 8

File: USPT

Dec 3, 1996

US-PAT-NO: 5580735

DOCUMENT-IDENTIFIER: US 5580735 A

TITLE: Stabilized microspheres and methods of preparation

DATE-ISSUED: December 3, 1996

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Malick; Adrien	Granite	MD		
Feindt; Hans H.	Parkton	MD		
Hahn; Gerald D.	Severn	MD		

US-CL-CURRENT: 435/6; 427/2.11, 427/2.14, 427/2.23, 428/402.2, 435/7.1, 435/7.5,  
436/518, 436/524, 436/527, 436/528, 436/534, 436/829

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KMC	Draw D
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☐ 6. Document ID: US 5393527 A

L2: Entry 6 of 8

File: USPT

Feb 28, 1995

US-PAT-NO: 5393527

DOCUMENT-IDENTIFIER: US 5393527 A

TITLE: Stabilized microspheres and methods of preparation

DATE-ISSUED: February 28, 1995

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Malick; Adrien	Granite	MD		
Feindt; Hans H.	Parkton	MD		

US-CL-CURRENT: 435/7.1; 424/420, 424/450, 427/8, 436/528, 436/532

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KMC	Draw D
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☐ 7. Document ID: US 5248590 A

L2: Entry 7 of 8

File: USPT

Sep 28, 1993

US-PAT-NO: 5248590

DOCUMENT-IDENTIFIER: US 5248590 A

**\*\* See image for Certificate of Correction \*\***

TITLE: Surface modified liposomes

DATE-ISSUED: September 28, 1993

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Rutner; Herman	Hackensack	NJ		
Readio; Josephine D.	Sparta	NJ		
Oppenheimer; Leslie	Kinnelon	NJ		

US-CL-CURRENT: 435/5, 422/56, 422/58, 422/61, 435/7.9, 435/970, 435/975, 436/528,  
436/532, 436/807, 436/808, 436/829

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KMC	Draw. D
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☐ 8. Document ID: EP 524804 A2, DE 69219685 E, CA 2073735 A, JP 05196624 A, US 5248590 A, EP 524804 A3, JP 2559185 B2, EP 524804 B1

L2: Entry 8 of 8

File: DWPI

Jan 27, 1993

DERWENT-ACC-NO: 1993-028852

DERWENT-WEEK: 199730

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TITLE: Assay reagent useful in assaying analytes and targetting therapeutic agents  
- comprises a liposome with surface amino gps. covalently bonded to linking gps.

INVENTOR: OPPENHEIMER, L; READIO, J D ; RUTNER, H

PRIORITY-DATA: 1991US-0733937 (July 22, 1991)

## PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
<u>EP 524804 A2</u>	January 27, 1993	E	013	G01N033/58
<u>DE 69219685 E</u>	June 19, 1997		000	G01N033/58
<u>CA 2073735 A</u>	January 23, 1993		000	G01N033/544
<u>JP 05196624 A</u>	August 6, 1993		011	G01N033/544
<u>US 5248590 A</u>	September 28, 1993		010	C12Q001/28
<u>EP 524804 A3</u>	July 28, 1993		000	G01N033/58
<u>JP 2559185 B2</u>	December 4, 1996		012	G01N033/544
<u>EP 524804 B1</u>	May 14, 1997	E	015	G01N033/58

INT-CL (IPC): A61K 9/127; C12Q 1/28; G01N 33/543; G01N 33/544; G01N 33/547; G01N 33/58

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KMC	Draw. D
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Fwd Refs

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Terms

Documents

liposome adj3 amphoteric

8

[First Hit](#)   [Fwd Refs](#)

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Print

L3: Entry 1 of 9

File: USPT

Oct 5, 1999

DOCUMENT-IDENTIFIER: US 5962015 A

TITLE: Stabilized liposomes

Brief Summary Text (8):

Accordingly, there have been many proposals for stabilizing liposomes. Known stabilizers for liposomes include certain relatively simple amphoteric molecules having a cationic region, for example triethanolamine, a common cosmetic buffer, can be added to phospholipid starting materials during liposome preparation to prevent aggregation. Though providing some stability, triethanolamine and the like, do not provide adequate shelf-life and processing stability to enable liposomes to protect actives in a wide range of cosmetic and pharmaceutical formulations.

## Hit List

Clear	Generate Collection	Print	Fwd Refs	Bkwd Refs
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Search Results - Record(s) 1 through 5 of 5 returned.

☐ 1. Document ID: US 5290563 A

Using default format because multiple data bases are involved.

L4: Entry 1 of 5

File: USPT

Mar 1, 1994

US-PAT-NO: 5290563

DOCUMENT-IDENTIFIER: US 5290563 A

TITLE: Method for combining a mixture of heterogeneous substances with liposomes

DATE-ISSUED: March 1, 1994

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Millet-Genin; Isabelle	Plaisir			FR
Puisieux; Francis	Maisons Alfort			FR
Thao; Tran X.	Chatenay Malabry			FR
Roblot-Treupel; Liliane	Thiais			FR

US-CL-CURRENT: 424/450; 264/4.1, 264/4.3, 424/275.1, 424/812, 436/829

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KOMC	Draw D
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☐ 2. Document ID: US 5064655 A

L4: Entry 2 of 5

File: USPT

Nov 12, 1991

US-PAT-NO: 5064655

DOCUMENT-IDENTIFIER: US 5064655 A

TITLE: Liposome gel composition and method

DATE-ISSUED: November 12, 1991

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Uster; Paul S.	Palo Alto	CA		
Morano; Jacqueline K.	Mountain View	CA		
Martin; Francis J.	San Francisco	CA		

US-CL-CURRENT: 424/450; 264/4.3, 428/402.2

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC	Draw. D.
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☐ 3. Document ID: US 4944948 A

L4: Entry 3 of 5

File: USPT

Jul 31, 1990

US-PAT-NO: 4944948

DOCUMENT-IDENTIFIER: US 4944948 A

**\*\* See image for Certificate of Correction \*\***

TITLE: EGF/Liposome gel composition and method

DATE-ISSUED: July 31, 1990

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Uster; Paul S.	Palo Alto	CA		
Fielding; Robert M.	Redwood City	CA		
Martin; Francis J.	San Francisco	CA		

US-CL-CURRENT: 424/450; 264/4.3, 424/1.21

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC	Draw. D.
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☐ 4. Document ID: JP 08254533 A

L4: Entry 4 of 5

File: JPAB

Oct 1, 1996

PUB-NO: JP408254533A

DOCUMENT-IDENTIFIER: JP 08254533 A

TITLE: OPTICAL IMMUNOASSAY AND REAGENT THEREFOR

PUBN-DATE: October 1, 1996

## INVENTOR-INFORMATION:

NAME	COUNTRY
NIRAZUKA, SADANOBU	
TANAKA, SEIJI	
HAMANO, AKISHIGE	

INT-CL (IPC): G01 N 33/544; G01 N 33/577

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC	Draw. D.
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☐ 5. Document ID: JP 08254533 A

L4: Entry 5 of 5

File: DWPI

Oct 1, 1996



DERWENT-ACC-NO: 1996-494206

DERWENT-WEEK: 199649

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TITLE: Reagent for optical immunoassay - comprises liposome carrying monoclonal antibodies of different isoelectric points

PRIORITY-DATA: 1995JP-0083139 (March 15, 1995)

## PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
JP 08254533 A	October 1, 1996		006	G01N033/544

INT-CL (IPC): G01 N 33/544; G01 N 33/577

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachment	Claims	KWIC	Draw. Des
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Terms	Documents
liposome adj5 isoelectric	5

Display Format:  [Previous Page](#)[Next Page](#)[Go to Doc#](#)

[First Hit](#)   [Fwd Refs](#)☐ [Generate Collection](#) [Print](#)

L4: Entry 1 of 5

File: USPT

Mar 1, 1994

DOCUMENT-IDENTIFIER: US 5290563 A

TITLE: Method for combining a mixture of heterogeneous substances with liposomes

Detailed Description Text (53):

Table II, which follows, combines the results obtained in the case where the pH of the liposome-allergen mixture is higher than the isoelectric point (ip) of the allergens (which is often the case when following Bangham's method) and in the case where the pH is reduced, for example, with a solution of HCl 0, 1N, to a final value lower than the ip of the allergens, the ionic lipid used being DCP (negative charge).

## CLAIMS:

1. A method of combining protidic allergens and/or allergenic extracts selected from the group consisting of natural allergens from animal or vegetable origin, allergenic proteins and peptides, with a negatively or positively charged liposome comprised of cholesterol, a phospholipid and/or at least one ionic lipid which gives the liposome a positive or negative charge, comprising
  - a) determining the isoelectric point ip of one or more of the allergenic substances to be mixed and
  - b) mixing said allergenic substance or substances with said liposome at a pH lower than said isoelectric point when the liposome is negatively charged or at a pH higher than said isoelectric point when said liposome is positively charged.
2. A method according to claim 1 wherein the liposome is positively charged and the weakest isoelectric point of said substance is determined.
3. A method according to claim 1 wherein the liposome is negatively charged and the strongest isoelectric point of said substance is determined.